



Water-Data Report 2008

**14015000 MILL CREEK AT WALLA WALLA, WA**

Middle Columbia Basin  
Walla Walla Subbasin

LOCATION.--Lat 46°04'35", long 118°16'21" referenced to North American Datum of 1927, in NE ¼ NW ¼ sec.23, T.7 N., R.6 E., Walla Walla County, WA, Hydrologic Unit 17070102, on left bank 200 ft downstream from diversion dam, 1.5 mi east of Walla Walla, and at mile 10.5.

DRAINAGE AREA.--95.7 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--April 1941 to current year.

REVISED RECORDS.--WSP 1288; Drainage area. WSP 1348: 1943, 1945-46.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,165.49 ft above NGVD of 1929 (levels by U.S. Corps of Engineers). April 1941 to June 11, 1941, nonrecording gage, and June 11, 1941, to Jan. 22, 1957, water-stage recorder, at sites 0.8 mi downstream at different datum. U.S. Geological Survey telephone telemeter at station.

REMARKS.--Records fair except for those below 10 ft<sup>3</sup>/s and estimated daily discharges, which are poor. Some regulation at diversion dam 200 ft upstream from station where water is diverted into Yellowhawk and Garrison Creeks for stock and irrigation. Since Nov. 19, 1941, water has been diverted 1.0 mi upstream into Mill Creek Reservoir for flood control with release of stored water after flood into Russell Creek, and is also diverted as required to replenish losses from seepage and evaporation from small recreation pool maintained in the reservoir. City of Walla Walla diverts water for municipal supply about 11 mi upstream. Other small diversions upstream from station for irrigation.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--66 years (water years 1942-2008), 79.0 ft<sup>3</sup>/s, 57,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,190 ft<sup>3</sup>/s, Feb. 9, 1996, gage height, 6.89 ft (inside high-water mark), from rating curve extended above 1,500 ft<sup>3</sup>/s; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31 or Apr. 1, 1931, discharge not determined, was greatest since at least 1913. A discharge of about 11,000 ft<sup>3</sup>/s, based on a slope-area measurement, was determined for the 1931 peak at old City of Walla Walla diversion dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 566 ft<sup>3</sup>/s, Apr. 15, gage height, 3.46 ft; minimum discharge, 0.22 ft<sup>3</sup>/s, on many days in October and November.

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**14015000 MILL CREEK AT WALLA WALLA, WA—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**  
[*e*, estimated]

<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>1</b>	0.60	0.32	20	53	50	288	73	147	157	37	4.7	2.2
<b>2</b>	0.60	0.59	21	50	49	241	71	113	150	34	4.3	2.2
<b>3</b>	0.77	0.58	48	50	50	181	72	114	147	29	4.8	2.2
<b>4</b>	0.33	0.41	100	62	45	149	76	153	193	28	4.2	2.3
<b>5</b>	0.22	1.3	104	91	42	115	79	219	176	28	4.0	2.2
<b>6</b>	0.22	1.6	87	86	46	97	80	268	174	21	3.8	2.2
<b>7</b>	0.22	1.6	77	76	50	92	82	236	272	20	4.1	2.2
<b>8</b>	0.22	1.6	62	69	54	93	83	200	275	15	3.9	2.2
<b>9</b>	0.22	1.7	53	75	92	97	80	167	225	13	3.7	2.2
<b>10</b>	0.61	1.8	48	70	180	100	84	144	282	12	2.9	2.2
<b>11</b>	1.1	1.9	41	112	259	177	100	162	431	11	2.1	2.4
<b>12</b>	1.1	1.4	41	139	242	234	123	156	459	9.5	1.3	2.2
<b>13</b>	1.1	32	38	130	256	246	259	140	395	9.0	1.4	2.2
<b>14</b>	0.77	23	37	118	208	325	449	186	304	8.7	1.6	2.3
<b>15</b>	0.60	18	37	106	160	310	331	255	230	8.1	1.5	2.2
<b>16</b>	0.75	20	36	88	143	261	219	334	202	7.0	1.5	2.2
<b>17</b>	1.1	38	e35	77	144	197	174	386	165	7.2	1.6	2.2
<b>18</b>	1.1	52	34	68	138	183	181	415	134	7.1	1.4	2.2
<b>19</b>	1.5	49	42	62	128	205	167	371	110	7.2	1.6	2.6
<b>20</b>	1.6	41	68	61	119	197	142	335	98	6.7	2.0	2.9
<b>21</b>	2.2	31	77	56	112	167	122	300	91	6.1	2.3	3.4
<b>22</b>	1.6	27	69	54	110	136	106	220	88	6.1	1.8	2.9
<b>23</b>	1.6	23	65	e53	107	121	107	199	83	6.5	1.6	3.2
<b>24</b>	1.6	19	249	e52	107	130	107	179	74	5.4	1.9	2.9
<b>25</b>	1.4	17	192	e50	119	127	97	190	65	5.2	2.2	2.9
<b>26</b>	1.3	16	136	e48	129	120	90	205	54	5.4	2.3	2.9
<b>27</b>	1.1	16	99	e54	133	110	99	203	50	5.4	2.2	2.9
<b>28</b>	1.1	15	86	e53	116	100	140	203	48	4.6	2.0	2.6
<b>29</b>	1.1	18	73	e52	134	92	243	197	45	4.4	2.2	2.2
<b>30</b>	1.1	20	65	48	---	87	214	169	40	6.0	2.2	2.2
<b>31</b>	0.75	---	58	52	---	78	---	154	---	5.7	2.3	---
<b>Total</b>	29.58	489.80	2,198	2,215	3,522	5,056	4,250	6,720	5,217	379.3	79.4	73.6
<b>Mean</b>	0.95	16.3	70.9	71.5	121	163	142	217	174	12.2	2.56	2.45
<b>Max</b>	2.2	52	249	139	259	325	449	415	459	37	4.8	3.4
<b>Min</b>	0.22	0.32	20	48	42	78	71	113	40	4.4	1.3	2.2
<b>Ac-ft</b>	59	972	4,360	4,390	6,990	10,030	8,430	13,330	10,350	752	157	146

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2008, BY WATER YEAR (WY)**

	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Mean</b>	5.87	44.7	109	149	172	169	160	98.6	37.1	3.41	1.90	2.23
<b>Max</b>	96.0	233	433	372	627	393	381	344	179	18.4	7.64	11.5
(WY)	(1952)	(1996)	(1965)	(1974)	(1996)	(1997)	(1974)	(1948)	(1974)	(1981)	(1989)	(1971)
<b>Min</b>	0.00	0.14	4.81	15.8	12.0	3.21	9.70	1.10	0.00	0.00	0.00	0.00
(WY)	(1989)	(1988)	(1953)	(1944)	(1977)	(1947)	(1947)	(1968)	(1973)	(1973)	(1973)	(1985)

**14015000 MILL CREEK AT WALLA WALLA, WA—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2007</b>	<b>Water Year 2008</b>	<b>Water Years 1941 - 2008</b>	
<b>Annual total</b>	17,305.82	30,229.68		
<b>Annual mean</b>	47.4	82.6	79.0	
<b>Highest annual mean</b>			182	1974
<b>Lowest annual mean</b>			18.1	1977
<b>Highest daily mean</b>	651	Jan 4	459	Jun 12
<b>Lowest daily mean</b>	0.10	Jul 22	0.22	Oct 5
<b>Annual seven-day minimum</b>	0.10	Aug 3	0.29	Oct 4
<b>Annual runoff (ac-ft)</b>	34,330		59,960	57,240
<b>10 percent exceeds</b>	143		216	215
<b>50 percent exceeds</b>	16		52	28
<b>90 percent exceeds</b>	0.22		1.5	0.07

